

Comparisons of Job Characteristics

Focus Occupation: Petroleum Engineers (17-2171)
Associated Occupation: Engineers, All Other (17-2199)

Compare Knowledge
 Compare Skills
 Compare Abilities
 Compare Detailed Work Activities
 Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Petroleum Engineers (17-2171)
Associated Occupation: Engineers, All Other (17-2199)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Engineering and Technology	5.7	20.1	22.0	0 Current knowledge level may be sufficient
Mathematics	9.2	17.1	17.4	0 Current knowledge level may be sufficient
Design	5.2	16.5	9.7	<< Extensive education and/or training may be required
Computers and Electronics	8.4	15.0	14.2	0 Current knowledge level may be sufficient
Physics	4.3	14.8	15.3	0 Current knowledge level may be sufficient
Mechanical	6.8	14.0	9.3	<< Extensive education and/or training may be required
Production and Processing	6.0	12.9	6.1	<< Extensive education and/or training may be required
Building and Construction	4.0	6.6	4.4	<< Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 81

Focus Occupation: Petroleum Engineers (17-2171)
Associated Occupation: Engineers, All Other (17-2199)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
Mathematics	6.2	12.8	10.1	< A higher skill level may be required
Systems Analysis	6.5	11.7	11.5	0 Current skill level may be sufficient
Science	4.5	11.4	10.5	0 Current skill level may be sufficient
Systems Evaluation	6.4	11.1	11.6	0 Current skill level may be sufficient
Operations Analysis	5.0	10.8	2.9	<< Extensive development of skills in this area may be required

Technology Design	2.6	7.9	5.4	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	6.3	2.5	<<	Extensive development of skills in this area may be required
Programming	2.2	5.3	3.2	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 97			
Focus Occupation: Petroleum Engineers (17-2171) Associated Occupation: Engineers, All Other (17-2199)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	15.1	15.7	0	Current ability level may be sufficient
Deductive Reasoning	10.6	15.0	13.0	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	13.7	14.2	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	13.4	11.7	<	Some improvement in abilities may be required
Information Ordering	9.9	13.2	12.9	0	Current ability level may be sufficient
Category Flexibility	9.0	12.3	12.6	0	Current ability level may be sufficient
Originality	7.6	11.8	10.3	<	Some improvement in abilities may be required
Visualization	7.5	11.7	9.3	<	Some improvement in abilities may be required
Number Facility	6.3	11.6	9.4	<	Some improvement in abilities may be required
Fluency of Ideas	7.6	11.4	11.1	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 93
Focus Occupation: Petroleum Engineers (17-2171) Associated Occupation: Engineers, All Other (17-2199)		
Tools and Technologies	Exclusivity	
Business function specific software	1	
Computer data input devices	2	
Computers	1	
Content authoring and editing software	1	
Data management and query software	1	

Finance accounting and enterprise resource planning ERP software	2
Industry specific software	1
Information exchange software	1
Network applications software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.